# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF VIRGINIA

Alexandria Division

UNITED STATES OF AMERICA

v.

AJEE WHITTER, a/k/a "Glockz,"

Defendant.

**UNDER SEAL** 

Criminal No. 1:22-mj-195

### **AFFIDAVIT IN SUPPORT OF CRIMINAL COMPLAINT**

I, Samuel F. Supnick, being duly sworn, hereby depose and state as follows:

### **INTRODUCTION**

- 1. This affidavit is submitted in support of a criminal complaint and arrest warrant charging AJEE WHITTER, also known as "Glockz," (hereinafter, "WHITTER") with possessing ammunition, knowing he had previously been convicted of a crime punishable by imprisonment for a term exceeding one year, in violation of Title 18, United States Code, Section 922(g)(1).
- 2. I am "an investigative or law enforcement officer" of the United States within the meaning of Section 2510(7) of Title 18, United States Code, in that I am an officer of the United States who is empowered by law to conduct investigations of and make arrests for the offenses enumerated in Titles 18, 21, and 26 of the United States Code.
- 3. I have been a Special Agent of the Bureau of Alcohol, Tobacco, Firearms, and Explosives ("ATF") since 2017. Through the ATF, I attended the Criminal Investigator Training Program at the Federal Law Enforcement Training Center, as well as the Special Agent Basic

nucleic acids, nucleic acids complexed with cationic molecules such as polylysine and liposome-forming lipids, and virus vectors.

Naked nucleic acids can be taken up by various animal cells, but are subject to nucleolysis, both inside and outside of cells that take them up. For example, it is known that cells in wounded tissue (e.g. cells lining an incision made in a tissue) are particularly amenable to taking up naked nucleic acids. Examples of such cells include, but are not limited to, fibroblasts, capillary endothelial cells, capillary pericytes, mononuclear inflammatory cells, segmented inflammatory cells, and granulation tissue cells.

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The use of nucleic acid analogs which are relatively resistant to nucleolysis is known. Such analogs include, for example, phosphorothioate nucleic acid analogs. However, in some situations, particularly where incorporation of the nucleic acid into the genome of the target cell is desired, the use of nucleic acid analogs can be undesirable. Targeting of naked nucleic acid vectors to particular animal tissues can be difficult, particularly in situations in which the tissue is normally bathed by a liquid in which the vector may be carried away from the tissue site.

Compositions for sustained release of naked nucleic acids are known, but such compositions have many of the same drawbacks of other naked nucleic acid vectors, namely, that the nucleic acids released from the compositions may not be efficiently taken up by cells of the desired tissue and that the nucleic acids released from the compositions are susceptible to nucleolysis. Examples of such compositions include compositions comprising naked nucleic acids in a biodegradable polymer matrix. Another shortcoming of such compositions is that it is difficult to target them to specific tissues in order to achieve localized delivery of the nucleic acid. Such compositions generally occur in liquid form, which must be injected at the desired site, but is capable of flowing from the site of administration to other sites.

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Numerous vectors comprising a nucleic acid complexed with a compound to improve stability or uptake of the nucleic acid by a target cell have been described. Such compounds include, by way of example, calcium phosphate, polycations such as diethylaminoethyl-dextran, polylysine, or polybrene, and liposome-

forming lipids such as didocylmethylammonium bromide and Lipofectamine. Many of these compounds are toxic or produce undesired reactions when administered to patients. Thus, while nucleic acid vectors comprising a nucleic acid complexed with one of these compounds may be useful for transfection of cultured cells, these vectors are not useful for delivering nucleic acids to cells in an animal tissue.

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Virus vectors are generally regarded as the most efficient nucleic acid vectors. Recombinant replication-defective virus vectors have been used to transduce (i.e., infect) animal cells both in vitro and in vivo. Such vectors have included retrovirus, adenovirus, adeno-associated virus vectors, and herpesvirus vectors. While highly efficient for gene transfer, a major disadvantage associated with the use of virus vectors is the inability of many virus vectors to infect non-dividing cells. Another serious problem associated with the use of virus gene vectors is the potential for such vectors to induce an immune response in a patient to whom they are administered. Such an immune response limits the effectiveness of the virus vector, since the patient's immune system rapidly clears the vector upon repeated or sustained administration of the vector. Furthermore, insertion of a gene into the genome of a cell by a virus vector may induce undesirable mutations in the cell. Other problems associated with virus gene vectors include the inability to appropriately regulate gene expression over time in transfected cells, the potential production and transmission to other humans of harmful virus particles, local and general toxicity, undesirable immunogenicity, and unintended disruption of target or other cell metabolism.

Despite the development of the techniques discussed above, there remains a need in the art for methods and compositions which can be used to enhance the delivery of a nucleic acid to a desired cell which is to be transfected with the nucleic acid. The present invention meets this need.

#### BRIEF SUMMARY OF THE INVENTION

The invention includes a method of enhancing the efficiency of delivery of a nucleic acid to a cell. The method comprises a) providing to the cell an agent capable of enhancing the cytoskeletal permissiveness of the cell for transfection in an

amount effective to enhance the cytoskeletal permissiveness; and b) providing to the cell a nucleic acid delivery system for the transfection of the cell, whereby the efficiency of delivery of a nucleic acid to the cell is enhanced.

In one aspect, the agent is an isolated nucleic acid encoding a protein or a polypeptide, wherein the protein or the polypeptide when expressed in the cell is capable of enhancing the cytoskeletal permissiveness of the cell for transfection.

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In another aspect, the nucleic acid delivery system is provided to the cell simultaneously with providing the agent.

In one embodiment, the nucleic acid delivery system is provided to the cell prior to providing the agent.

In another embodiment, the nucleic acid delivery system is provided to the cell after providing the agent.

In yet another embodiment, the agent is denatured collagen or a peptide thereof.

In a further embodiment, the agent is Thymosin beta-4 (TB4) or a peptide thereof.

In one aspect, the agent is Tenascin C or a peptide thereof.

In another aspect, the agent comprises Tenascin C and TB4.

In one embodiment, the protein is one or more of Tenascin C, TB4 and peptides thereof.

In another embodiment, the isolated nucleic acid is provided to the cell using a vector selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.

In a further embodiment, the nucleic acid delivery system comprises a vector selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.

In one aspect of the method of the invention, enhancing the cytoskeletal permissiveness for transfection comprises inhibiting DNAase I activity in the milieu surrounding or the cytoplasm of the cell.

In another aspect, enhancing the cytoskeletal permissiveness for transfection comprises reducing the overall electronegative charge of the milieu surrounding or the cytoplasm of the cell to be transfected.

In one aspect, enhancing the cytoskeletal permissiveness comprises enhancing the level of G-Actin in the cell.

In another aspect, enhancing the level of G-Actin comprises depolymerizing F-Actin to G-Actin.

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In one embodiment, the agent is a compound capable of modulating an ion channel in the cell.

In another embodiment, the agent is an actin binding protein.

In a further embodiment, the agent is a compound capable of rendering G-Actin less susceptible to proteolysis upon binding with G-Actin.

In one aspect, the compound is selected from the group consisting of beryllium fluoride and a cadmium salt.

In one embodiment, the level of G-Actin is enhanced by directly or indirectly upregulating TB4.

In one aspect, the TB4 is indirectly upregulated by growing the cell on a Tenascin C inducing substrate.

In one embodiment, the Tenascin C inducing substrate is denatured collagen or a peptide thereof.

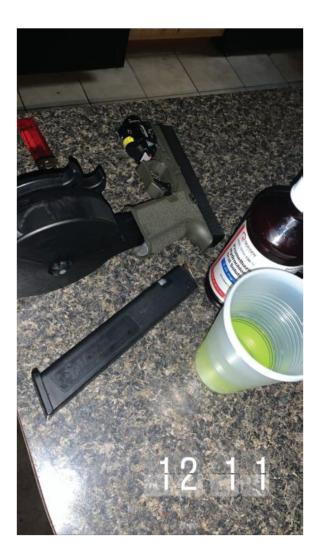
In a further embodiment, the agent is a modulator of an intermediate in the Tenascin C and TB4 receptor-signaling pathway.

In a still further embodiment, the agent is a cytochalasin:

In yet another embodiment, the agent is selected from the group consisting of a TB4 promoter, a molecule which participates in cell-cell interactions, a molecule which participates in cell-cell adhesion, and a synthetic extracellular matrix molecule having design features effective to enhance the cytoskeletal permissiveness of a cell for transfection.

The invention also includes a composition for enhancing the efficiency of delivery of a nucleic acid to a cell. The composition comprises a) an agent capable

Per the Return, the below image on the left bears the timestamp: 2022-04-03 13:11:38 UTC. Per the Return, the below image on the right bears the timestamp: 2022-03-23 15:35:40 UTC.





Per the Return, the below image was taken on 2022-03-31 at 16:24:09 UTC. The individual holding the firearm in the below image is consistent in appearance with WHITTER.



Per the Return, the below image bears the timestamp 2022-03-23 14:32:04 UTC:



Below are photographs of the recovered Polymer80 pistol taken by your Affiant on May 4, 2022:





Below are photographs of the recovered drum-type and stick-type magazines recovered in and with the pistol taken by your Affiant on June 22, 2022:





## **Examination of Recovered Ammunition**

12. On June 22, 2022, your Affiant met with Det. 1 to photograph and examine the ammunition from the satchel FCPD personnel observed WHITTER throw at his arrest. When examined by your Affiant, the magazines recovered from the satchel consisted of a stick-type magazine containing one (1) round of Prvi Partizan brand 9mm Luger caliber ammunition, and a drum-type magazine containing thirty-eight (38) rounds of assorted brand, 9mm Luger caliber ammunition. Your Affiant also photographed and examined seventeen (17) rounds of assorted brand, 9mm Luger caliber ammunition that had been previously removed from the magazines.

<sup>&</sup>lt;sup>1</sup> Prior to its examination by your Affiant, FCPD personnel removed this ammunition from the magazines recovered from the satchel and then placed the ammunition in the evidence bag containing the magazines.

Based on your Affiant's training, knowledge, and experience, the above ammunition was not

manufactured in the Commonwealth of Virginia, and, therefore, traveled in and/or affected

interstate commerce.

**CONCLUSION** 

13. Based upon the foregoing, I submit that there is probable cause to believe that on

or about April 11, 2022, in Fairfax County, Virginia, within the Eastern District of Virginia, Ajee

WHITTER possessed ammunition, knowing he had previously been convicted of a crime

punishable by imprisonment for a term exceeding one year, in violation of Title 18, United States

Code, Section 922(g)(1).

Respectfully submitted,

Samuel F. Supnick, Special Agent

Bureau of Alcohol, Tobacco, Firearms, and Explosives

Attested to by the applicant in accordance with the requirements of Fed. R. Crim. P. 4.1 by telephone on August 26, 2022.

John F. Anderson Anderson

Digitally signed by John F.

Date: 2022.08.26 15:19:09 -04'00'

Hon. John F. Anderson

United States Magistrate Judge

11